

## FOREWORD

From time immemorial the disposal of man's waste products has been an indicator of the standard of civilisation he has attained. The more sophisticated and developed a country is, the more advanced is its methods of waste disposal.

Alongside advances in development and sophistication of mankind, has been the growth in population and the resultant metropolitan conurbations. This has resulted in a concomitant increase in waste, in both of its forms, namely waste-water and solid waste. In order to prevent the spread of disease and allied health problems it has become necessary to research every possibility for more efficient and safe ways of disposing of waste-water sludge as well as refuse.

Waste managers in South Africa have in the past considered landfill as a hole in the ground where waste is buried and forgotten (tomb concept). However, more recently the importance of proper landfill management including leachate and biogas management is becoming more of a reality (bioreactor concept). The importance of controlled landfill management, incorporating sludge co-disposal, in which leachate is contained, recycled and treated, thereby, accelerating the stabilisation process must not be underestimated.

It is, therefore, encouraging to find through this research project that by the co-disposal of waste-water sludge with refuse in a sanitary landfill, both waste streams can be beneficially disposed, and that their decompositions can satisfactorily take place, in certain circumstances, and within defined limits.

The objectives of this research project have been to show that by combining waste-water sludge with refuse in a practical "hands on" manner, effective landfilling treatment takes place without negatively influencing the environment.

**P E Odendaal**  
Executive Director, Water Research Commission